Stony Brook University

intel

3.5X higher sustained memory bandwidth with HBM versus just DDR on Intel Xeon CPU Max Series.[1]

Seawulf is the First U.S. Academic Supercomputer with Intel® Xeon® CPU Max Series

Stony Brook University recently upgraded its Seawulf supercomputer, a heterogeneous system comprising CPUs and GPUs, delivering up to 1.86 petaFLOPS. The most recent addition was built on Intel® Xeon® CPU Max Series with High-bandwidth Memory (HBM). Stony Brook researchers and computational scientists have experience with HBM through the university's Ookami cluster, built on the Fujitsu A64FX processor with HBM. HPE built the new partition with 94 nodes of HPE ProLiant DL360 Gen11 servers, each hosting two Intel® Xeon® Max 9468 processors with HBM. The system was put into production in 2023, and several researchers and computational scientists have been running it through its paces. The new partition delivers as much as 3.5x sustained memory bandwidth and better thread scaling running with HBM versus DDR. With its new tile multiplication unit, the new Intel CPU delivers better performance on deep learning with Intel® oneAPI Deep Neural Network Library across multiple data types used in training and inference.

Products and Solutions
Intel® Xeon® CPU Max Series
Intel® oneAPI Deep Neural Network Library

Industry	Organization Size	Country	Partners	Learn more
Higher Education	10,001	United States	ComnetCo HPE	Case Study